



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Examiner: Ly, Nghi H.  
Art Unit: 2682

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Application of: Joyce et al.  
Serial No. 09/898,357  
Filed: 07/03/2001  
For: **LOCATION-BASED CONTENT DELIVERY**

Commissioner for Patents  
Washington, D.C. 20231

Sir:

The present **APPEAL BRIEF** is filed in triplicate pursuant to 37 C.F.R. § 1.192. Applicant also encloses a credit card form authorizing payment in the amount of \$320.00 as required by 37 C.F.R. § 1.17(c). If any additional fees are required in association with this appeal brief, the Director is hereby authorized to charge them to Deposit Account 50-1732, and consider this a petition therefor.

**APPEAL BRIEF**

**(1) REAL PARTY IN INTEREST**

The real party in interest is Nortel Networks Limited of 2351 Boulevard Alfred-Nobel, St. Laurent, Quebec, Canada, H4S 2A9.

**(2) RELATED APPEALS AND INTERFERENCES**

There are no related appeals or interferences to the best of Applicant's knowledge.

**(3) STATUS OF CLAIMS**

Claims 1-23, 25, and 26 stand rejected with the rejection made final.

Claim 24 was canceled in the Response of 17 April 2002.

Applicant appeals from the rejection of claims 1-23, 25, and 26.

**(4) STATUS OF AMENDMENTS**

All amendments have been entered.

**(5) SUMMARY OF THE INVENTION**

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The present invention facilitates content delivery to a mobile terminal. Specifically, localities are defined around particular points of presence. These localities have predefined geographic boundaries. A location sensor associated with the mobile terminal reports the mobile terminal's location to an application service. The application service determines if the mobile terminal has moved within the geographic boundaries of any of the localities. If the answer is yes, the mobile terminal has moved across a border to a position within a locality, then the application service sends content to the mobile terminal based on the points of presence within the locality.

As an additional option available for use with the present invention, the mobile terminal may define a zone of acceptance for the mobile terminal. The zone of acceptance is a zone centered on the mobile terminal and extending a predefined radius therefrom. If a portion of the zone of acceptance overlaps the geographic boundaries of a locality, then content may be provided to the mobile terminal just as if the mobile terminal had entered the locality.

## **(6) ISSUES**

Whether claims 1-23, 25, and 26 are anticipated under 35 U.S.C. § 102(a) by Hollenberg.

## **(7) GROUPING OF CLAIMS**

Claims 1-5, 8-10, 12-16, 19-23, 25, and 26 stand or fall together.

Claims 6, 7, 17, and 18 stand or fall together.

Claims 11 and 22 stand or fall together.

## **(8) ARGUMENT**

### **A. Introduction**

The present invention is not anticipated by Hollenberg because Hollenberg does not show all of the claim elements arranged as claimed. Specifically, the reference does not teach that a content provider with a predefined area defined therearound delivers content to a mobile terminal when the mobile terminal moves to a position within the predefined area. What the reference shows is in fact the converse of the claimed invention since the reference shows a mobile terminal with a radius defined therearound. If the mobile terminal moves such that a content

provider is within the predefined radius, then the content is delivered to the mobile terminal. These are not the same thing, and as such, an anticipation rejection is unfounded.

### **B. Summary of the Reference - Hollenberg, U.S. Patent 6,091,956**

Hollenberg relates to a wireless system that provides information to mobile terminal users. The reference describes a service that allows subscriptions by consumers and information providers. The information providers may be vendors or content providers of almost any sort. The information providers typically have a specific geographic location, such as a store location. The coordinates of this location are given to the service along with electronic versions of information that the information provider wishes to send to prospective consumers.

The consumers that subscribe to the service possess a mobile terminal that is coupled to a location determining system, such as GPS. Further, the consumer may indicate what sort of information that they would like to receive from the service from a series of programmable filters. In use, the service initially determines the location of the mobile terminal. After determining the location of the mobile terminal, the system evaluates all information providers within a distance predefined by the user defined filter. The information providers are evaluated to see if the type and sort of information that they provide falls within the consumer's filters. If the answer is yes, then the information from the information providers is provided to the consumers.

In every instance of the reference, the consumer approaches within a predefined distance of the coordinates of the information provider before the information is provided. Thus, the mobile terminal exudes a "zone of acceptance" centered on the mobile terminal and extending outward in the predefined radius. If the zone of acceptance passes over the coordinates of an information provider, the consumer is provided information.

### **C. Standard for Anticipation**

Section 102 of the Patent Act provides the statutory basis for an anticipation rejection and states *inter alia*:

A person shall be entitled to a patent unless

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent . . . .

The Federal Circuit's test for anticipation has been set forth numerous times. "It is axiomatic that for prior art to anticipate under 102 it has to meet every element of the claimed invention." *Hybritech Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1379 (Fed. Cir. 1986). This standard has been reinforced. "To anticipate a claim, a reference must disclose every element of the challenged claim and enable one skilled in the art to make the anticipating subject matter." *PPG Indus., Inc. v. Guardian Indus. Corp.*, 75 F.3d 1558, 1566 (Fed. Cir. 1996) (citations omitted). This standard has received relatively recent attention. "[A] finding of anticipation requires that the publication describe all of the elements of the claims, arranged as in the patented device." *C.R. Bard Inc., v. M3 Sys. Inc.*, 157 F.3d 1340, 1349 (Fed. Cir. 1998) (emphasis added and citations omitted).

#### **D. Hollenberg does not anticipate the claimed invention**

The present invention is subtly, but patentably, distinct from the reference, especially in the crucible of an anticipation analysis. Because anticipation has such a rigorous standard, even subtle differences are enough to remove the claimed invention from an anticipation rejection. In this case, the reference teaches the converse of the claimed invention and as such does not anticipate the claimed invention.

Claim 1 recites "determining a locality encompassing the location of the mobile terminal . . . ." In Applicant's first response, Applicant argued that the term "locality" was specifically defined in the specification at page 2, line 31 to page 3, line 4. This definition is set forth in the margin.<sup>1</sup> The Patent Office responded by indicating that because the words "could be" were used in the definition, the definition did not strictly require the limitations. The Patent Office went on to define "locality" as "a defined area associated with a point of presence."<sup>2</sup> Using either definition, the reference does not show "determining a locality encompassing the location of the mobile terminal . . . ." The Patent Office points to column 5, lines 19-28<sup>3</sup> and column 8

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<sup>1</sup> "[A] locality may define a business district for a city, the city, or a defined area about a point of presence. For the latter, a locality could be defined to include an area having a certain radius about a retailer's point of presence or within a certain number of city blocks." Specification, page 2, line 31 to page 3, line 4.

<sup>2</sup> Office Action of 01 July 2002, page 6.

<sup>3</sup> "The mobile computer's transmitters and receivers include a receiver for satellite positioning system signals, such as GPS or GLONASS, a transceiver for wireless voice and data telecommunications capability, and a transponding transceiver for location finding in topographically complex, that is, mountainous areas or area surrounded by buildings, e.g., in urban 'canyons' and those enclosed within buildings, such as shopping malls." Column 5, lines 19-28.

lines 65-68<sup>4</sup> of the reference for support of its rejection of this portion of claim 1. A close reading of the cited passages reveals nothing of the sort. The passages do discuss that the mobile terminals are equipped with location determining devices, but the passages have no teaching or suggestion that anyone or anything determines a locality (under either definition) encompassing the location of the mobile terminal. In the Advisory Action, the Patent Office also pointed to column 16, lines 19-25<sup>5</sup> of the reference. This cited passage actually confirms Applicant's understanding of the reference as described in the summary of the reference section above. Specifically, the passage indicates that the user selects a "selectable distance" or radius about the mobile terminal as a zone of acceptance, and if the zone of acceptance passes over the retail store site 3e, then the information is provided. What this passage does not teach is determining if the locality encompasses the mobile terminal. As such, claim 1 is not anticipated.

The Patent Office further points to column 11, lines 43-56.<sup>6</sup> The Patent Office asserts that this passage "teaches that whenever the mobile user enter [sic] a shopping area (or a defined area associated with a point of presence) such as the retailer, then the retailer will transmit services to the mobile user."<sup>7</sup> However, a close reading of the passage reveals no such teaching. The cited passage indicates that certain antennas (14a-14c) of Figure 1 receive location information and information requests from mobile computers (18b and 18c), and that one antenna (14b) transmits and receives information to and from another mobile computer (18a). Nothing in the passage indicates that it is the entry into the shopping area which causes the one antenna to transmit to the mobile computer. To the contrary, with respect to the transmit trigger event, Figures 1 and 2 have essentially the same text as the text previously cited. Specifically,

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<sup>4</sup> "a system for providing mobile users with geographic location information, such as corrected by differential GPS." Column 8, lines 65-68.

<sup>5</sup> "As the device user's mapped location, shown on the display by device location and direction symbol 6f, approaches within a selectable distance of environment proximate information features, such as retail store site 3e, an advertising message such as service provider menu 6h, or an optional advertising message (not shown), would appear on the display awaiting the user's request for information or services." Column 16, lines 17-24.

<sup>6</sup> "Referring now to FIG. 1 which shows an alternative embodiment of a situation information system used in a defined environment such as a shopping area in which can be seen rf antennas 14a, 14b, and 14c, the locations of which are known, and which generally transmit and receive information from mobile computers 18a, 18b, and 18c. Specifically in FIG. 1 antennas 14a through 14c are shown receiving information 16a, 16b, and 16c as well as 16d, 16e, and 16f from mobile computers 18b and 18c, respectively, to provide services from the service provider including finding the locations of the aforementioned mobile computers and receive information requests. In addition, antenna 14b is shown transmitting and receiving information 15a to and from mobile computer 18a." Column 11, lines 43-56.

<sup>7</sup> Advisory Action, page 3 (emphasis in original).

column 13, lines 29-35<sup>8</sup> describes what causes the antennas to transmit with respect to Figures 1 and 2. As discussed above, the “selectable distance” language of the reference is in reference to a radius around the mobile terminal, not a radius around the point of presence or a locality.

Claims 2-5 and 8-10 depend from claim 1 and are patentable for the same reason that claim 1 is allowable – namely, the reference does not teach determining a locality encompassing the location of the mobile terminal.

Claim 12 is essentially identical to claim 1 except recharacterized as a system claim. Thus, claim 12 stands or falls with claim 1. Claims 13-16 and 19-21 depend from claim 12 and are patentable for the same reasons that claim 12 is patentable.

Claim 23 is essentially identical to claim 1 except recharacterized as a software claim. Thus, claim 23 stands or falls with claim 1.

Claims 25 and 26 stand or fall with claim 1. While there are subtle variations in the scope of the claims, the patentability of the claims turns on the interpretation of whether the reference shows the locality and sends the content to the mobile terminal based on whether the mobile terminal has moved within the zone of acceptance of the locality. If Applicant’s understanding of which element in the reference has the zone of acceptance prevails, then these claims are patentable for the same reason.

Claims 6 and 7 and their corresponding system claims 17 and 18 are independently patentable because they further define the term “locality” beyond the definition used by the Patent Office. Specifically, the claims recite that the locality defines a geographic area. For claims 6 and 17, the Patent Office points to column 5, lines 19-28<sup>9</sup> and column 16, lines 17-24<sup>10</sup> as well as Figure 11, elements 6u, 6v, 6w, and 6x. A close reading of the first passage reveals nothing linking a locality to a geographic area. Rather, the passage indicates that the mobile computer may have a GPS receiver or an alternate location determining system when in areas that do not have good GPS reception. Thus, the first passage does not support the rejection. The second passage is the passage about how the mobile terminal receives content if its zone of acceptance overlaps a retail store. Again, nothing in the passage indicates that the retail store

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<sup>8</sup> “As the user’s location, shown on the display by device location and direction symbol 6a approaches within a selectable distance of proximate information station 3a, proximate station banner 6d appears on display 4a, followed by proximate merchandise banner 6e to call user’s attention to, for example, a short term offer of merchandise. . . .” Column 13, lines 29-35.

<sup>9</sup> *Supra* note 3.

<sup>10</sup> *Supra* note 5.

equates to a recognized geographic area. Thus, this passage does not support the rejection. Finally, Figure 11, elements 6u, 6v, 6w, and 6x are an information menu, a look ahead list, mileage tabulation, and estimated travel time, respectively. The look ahead list 6v comes closest to defining geographic areas. However, contextually, these geographic areas are related to maps that the consumer may view. These maps are accessible independent of the position of the mobile terminal. In fact, that is their whole purpose – the user may scroll ahead on the map to see what is coming up, but there is no tie between the location of the mobile terminal and the provision of the maps nor is there any predefined recognized geographic area which sends content to a mobile terminal when the mobile terminal enters the predefined recognized geographic area. Thus, these elements in the reference do not support an anticipation rejection.

The Patent Office separately rejects claims 7 and 18 pointing to column 7, lines 31-40<sup>11</sup> and column 16, lines 17-24, as well as pointing to Figure 11, elements 6u, 6v, 6w, and 6x. Applicant has already addressed the latter two citations. The citation to column 7, lines 31-40 likewise does not anticipate the claimed subject matter. The passage indicates that users may receive maps about geographic areas corresponding to the store or the mall. However, this presupposes that the customer is already within the confines of the point of presence (i.e., the store or the mall). There is nothing in the passage that links the defined area associated with a point of presence with a geographic area about a point of presence. Thus, these passages do not support an anticipation rejection and claims 6, 7, 17, and 18 are allowable over the rejection of record.

Claims 11 and 22 are parallel method and system claims reciting that determining whether the mobile terminal is within the locality comprises determining if a zone of acceptance exuded from the mobile terminal overlaps any portion of the defined area associated with a point of presence. The Patent Office opined that this is shown by Figure 14, step 131 followed by steps 127-130. The passage in the reference describing these steps may be found at column 24, lines 19-47. In response to Applicant's arguments on the point that this passage did not support

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<sup>11</sup> "In such a scenario, a local extranet and customer-carried display device could provide a new type of promotion and advertising medium. For example, knowing a person's location, the networked store could increase customer traffic by transmitting special offers directly to the willing customer's device. An additional benefit is that customers can receive services like maps and other aids to help them find their way around the store or shopping mall to the desired merchandise or store, respectively."

the rejection, the Patent Office then pointed to column 9, lines 11-14,<sup>12</sup> column 16, lines 19-25<sup>13</sup> and column 11, lines 43-56.<sup>14</sup> Applicant has already explained why the latter two passages do not show a locality, but rather show the zone of acceptance around the mobile terminal. The passage at column 9, lines 11-14 provides no support for the concept of a locality. Thus, the reference still only shows the zone of acceptance around the mobile terminal. There remains no teaching of two zones, one exuded from the mobile terminal and one exuded from the point of presence in the form of a locality. Under the rigorous standards of anticipation, the rejection is not supported because the claim elements are not taught and arranged as claimed. Thus, claims 11 and 22 are patentable over the rejection of record.

#### E. Conclusion

The reference is similar to the claimed invention, but the claimed invention is patentably distinct from the reference in an anticipation analysis because the reference shows the converse of the claimed invention. For the reasons set forth above, Applicant requests that the Board find that the claims 1-23, 25, and 26 are patentable over Hollenberg at the Board's earliest convenience.

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<sup>12</sup> "[A] situation information system which provides local or proximate information, such as merchant's advertising messages, merchandise offers, and tourism site information, according to mobile users' location." Column 9, lines 11-14.

<sup>13</sup> *Supra*, note 5.

<sup>14</sup> *Supra*, note 6.



## **(9) APPENDIX**

1. A method for delivering content to a mobile terminal comprising:
  - a) determining a location of the mobile terminal;
  - b) determining a locality encompassing the location of the mobile terminal;
  - c) accessing content based on the locality; and
  - d) delivering the content to the mobile terminal.
2. The method of claim 1 wherein the locality encompassing the mobile terminal is determined by:
  - a) sending a request to a locality service to associate the location of the mobile terminal with a locality encompassing the location of the mobile terminal;
  - b) receiving a response from the locality service identifying the locality encompassing the location of the mobile terminal; and
  - c) wherein the locality service includes a plurality of locations defining geographic areas.
3. The method of claim 1 wherein the content is accessed by:
  - a) sending a request to a content provider including the locality; and
  - b) receiving the content from the content provider.
4. The method of claim 1 wherein the step of accessing content is further based on a type of content desired by a user of the mobile terminal.
5. The method of claim 1 wherein the step of accessing content is further based on characteristics of a user of the mobile terminal.
6. The method of claim 1 wherein the locality defines a recognized geographic area.
7. The method of claim 1 wherein the locality defines a geographic area about a point of presence for a content provider.

8. The method of claim 1 wherein the content accessed based on locality relates to a point of presence within the locality.

9. The method of claim 1 further comprising accessing a profile associated with a user of the mobile terminal and wherein the step of accessing the content is further based on criteria within the profile such that the criteria further identifies the type of content to access.

10. The method of claim 1 further comprising accessing a profile associated with a point of presence with the locality and wherein the step of accessing the content is further based on criteria within the profile such that the criteria further identifies the type of content to access.

11. The method of claim 1 wherein the locality encompassing the mobile terminal is determined by identifying a zone of acceptance about the location of the mobile terminal and identifying the locality at least partially covering the zone of acceptance.

12. A system for delivering content to a mobile terminal comprising an interface and a control system adapted to:

- a) determine a location of the mobile terminal;
- b) determine a locality encompassing the location of the mobile terminal;
- c) access content based on the locality; and
- d) send the content to the mobile terminal.

13. The system of claim 12 wherein the control system is further adapted to determine the locality encompassing the mobile terminal by:

- a) sending a request to a locality service to associate the location of the mobile terminal with a locality encompassing the location of the mobile terminal;
- b) receiving a response from the locality service identifying the locality encompassing the location of the mobile terminal; and
- c) wherein the locality service includes a plurality of locations defining geographic areas.

14. The system of claim 12 wherein the control system is further adapted to access the content by:

- a) sending a request to the content provider including the locality; and
- b) receiving the content from the content provider.

15. The system of claim 12 wherein the control system is further adapted to access the content based on a type of content desired by a user of the mobile terminal.

16. The system of claim 12 wherein the control system is further adapted to access the content based on characteristics of a user of the mobile terminal.

17. The system of claim 12 wherein the locality defines a recognized geographic area.

18. The system of claim 12 wherein the locality defines a geographic area about a point of presence for a content provider.

19. The system of claim 12 wherein the content accessed based on locality relates to a point of presence within the locality.

20. The system of claim 12 wherein the control system is further adapted to access a profile associated with a user of the mobile terminal and access the content based on criteria within the profile such that the criteria further identifies the type of content to access.

21. The system of claim 12 wherein the control system is further adapted to access a profile associated with a point of presence with the locality and to access the content based on criteria within the profile such that the criteria further identifies the type of content to access.

22. The system of claim 12 wherein the locality encompassing the mobile terminal is determined by identifying a zone of acceptance about the location of the mobile terminal and identifying the locality at least partially covering the zone of acceptance.

23. A computer readable medium with software comprising instructions for a computer to:

- a) determine a location of a mobile terminal;
- b) determine a locality encompassing the location of the mobile terminal;
- c) access content based on the locality; and
- d) send the content to the mobile terminal.

25. A method for delivering content to a mobile terminal comprising:

- a) determining a location of the mobile terminal;
- b) determining a location of a point of presence having associated content;
- c) determining a relative proximity between the location of the mobile terminal and the location of the point of presence, wherein the location of the point of presence is a locality;
- d) accessing the associated content if the relative proximity between the location of the mobile terminal and the location of the point of presence is within a desired range; and
- e) delivering the associated content to the mobile terminal.

26. The method of claim 25 wherein the relative proximity between the location of the mobile terminal and the location of the point of presence is determined by determining a locality encompassing the location of the mobile terminal.